

B/CAMPBELL

PCT

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/674,768

DATE: 12/26/2000
TIME: 13:23:18

Input Set : A:\PTO.txt
Output Set: N:\CRF3\12262000\I674768.raw

ENTERED

3 <110> APPLICANT: NEUHAUS, Ekkehard
4 MOERLMANN, Torsten
5 GRAEVE-KAMPERKEL, Karl-Heinz
6 TJADEN, Joachim
7 SCHELL, Jozef
8 MARTINI, Norbert
10 <120> TITLE OF INVENTION: Transgenic Plants with a Modified Activity of a Plastidial ADP/ATP
11 Translocator
13 <130> FILE REFERENCE: 0147-0215P
C--> 15 <140> CURRENT APPLICATION NUMBER: US/09/674,768
C--> 16 <141> CURRENT FILING DATE: 2000-11-06
18 <150> PRIOR APPLICATION NUMBER: 198 21 442.1 Germany
19 <151> PRIOR FILING DATE: 1998-05-13
21 <150> PRIOR APPLICATION NUMBER: PCT/EP99/03292
22 <151> PRIOR FILING DATE: 1999-05-12
24 <160> NUMBER OF SEQ ID NOS: 7
26 <170> SOFTWARE: PatentIn Ver. 2.1
28 <210> SEQ ID NO: 1
29 <211> LENGTH: 37
30 <212> TYPE: DNA
31 <213> ORGANISM: Artificial Sequence
33 <220> FEATURE:
34 <223> OTHER INFORMATION: Description of Artificial Sequence: sense-primer
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67 <213> ORGANISM: Artificial Sequence
69 <220> FEATURE:
70 <223> OTHER INFORMATION: Description of Artificial Sequence: primer

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83 1 5 10 15
85 Pro Ile Gly Val Arg Ser Gln Leu Gln Pro Ser His Gly Leu Lys Gln
86 20 25 30
88 Arg Leu Phe Ala Ala Lys Pro Arg Asn Leu His Gly Cys Leu Tyr Pro
89 35 40 45
91 Leu Thr Gly Thr Arg Asn Phe Lys Pro Leu Ser Gln Pro Cys Met Gly
92 50 55 60
94 Phe Arg Phe Pro Thr Lys Arg Glu Ala Pro Ser Ser Tyr Ala Arg Arg
95 65 70 75 80
97 Arg Arg Gly Cys Trp Arg Arg Ser Cys Leu Arg Arg Ser Asp Ser Ala
98 85 90 95
100 Ala Val Val Ala Ser Arg Lys Ile Phe Gly Val Glu Val Ala Thr Leu
101 100 105 110
103 Lys Lys Ile Ile Pro Leu Gly Leu Met Phe Phe Cys Ile Leu Phe Asn
104 115 120 125
106 Tyr Thr Ile Leu Arg Asp Thr Lys Asp Val Leu Val Val Thr Ala Lys
107 130 135 140
109 Gly Ser Ser Ala Glu Ile Ile Pro Phe Leu Lys Thr Trp Val Asn Leu
110 145 150 155 160
112 Pro Met Ala Ile Gly Phe Met Leu Leu Tyr Thr Lys Leu Ser Asn Val
113 165 170 175
115 Leu Ser Lys Lys Ala Leu Phe Tyr Thr Val Ile Val Pro Phe Ile Ile
116 180 185 190
118 Tyr Phe Gly Gly Phe Gly Phe Val Met Tyr Pro Leu Ser Asn Tyr Ile
119 195 200 205
121 His Pro Glu Ala Leu Ala Asp Lys Leu Leu Thr Thr Leu Gly Pro Arg
122 210 215 220
124 Phe Met Gly Pro Ile Ala Ile Leu Arg Ile Trp Ser Phe Cys Leu Phe
125 225 230 235 240
127 Tyr Val Met Ala Glu Leu Trp Gly Ser Val Val Val Ser Val Leu Phe
128 245 250 255
130 Trp Gly Phe Ala Asn Gln Ile Thr Thr Val Asp Glu Ala Lys Phe
131 260 265 270
133 Tyr Pro Leu Phe Gly Ile Gly Ala Asn Val Ala Leu Ile Phe Ser Gly
134 275 280 285
136 Arg Thr Val Lys Tyr Phe Ser Asn Leu Arg Lys Asn Leu Gly Pro Gly
137 290 295 300
139 Val Asp Gly Ser Phe Val Glu Ser His Asp Glu His Cys Gly Gly Asn
140 305 310 315 320
142 Gly Thr Arg Ile Cys Leu Ser Ile Gly Gly Ser Asn Arg Tyr Val Pro
143 325 330 335

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145 Leu Pro Thr Arg Ser Lys Asn Lys Lys Glu Lys Pro Lys Met Gly Thr
146 340 345 350
148 Met Glu Ser Leu Lys Phe Leu Val Ser Ser Pro Tyr Ile Arg Asp Leu
149 355 360 365
151 Ala Thr Leu Val Val Ala Tyr Gly Ile Ser Ile Asn Leu Val Glu Val
152 370 375 380
154 Thr Trp Lys Ser Lys Leu Lys Ala Gln Phe Pro Ser Pro Asn Glu Tyr
155 385 390 395 400
157 Ser Ala Phe Met Gly Ala Phe Ser Thr Cys Thr Gly Val Ala Thr Phe
158 405 410 415
160 Thr Met Met Leu Leu Ser Gln Tyr Val Phe Asn Lys Tyr Trp Gly
161 420 425 430
163 Val Ala Ala Lys Ile Thr Pro Thr Val Leu Leu Leu Thr Gly Val Ala
164 435 440 445
166 Phe Phe Ser Leu Ile Leu Phe Gly Gly Pro Phe Ala Pro Leu Val Ala
167 450 455 460
169 Lys Leu Gly Met Thr Pro Leu Leu Ala Ala Val Tyr Val Gly Ala Leu
170 465 470 475 480
172 Gln Asn Ile Phe Ser Ser Ala Lys Tyr Ser Leu Phe Asp Pro Cys
173 485 490 495
175 Lys Glu Met Ala Tyr Ile Pro Leu Asp Glu Asp Thr Lys Val Lys Gly
176 500 505 510
178 Lys Ala Ala Ile Asp Val Val Cys Asn Pro Leu Gly Lys Ser Gly Gly
179 515 520 525
181 Ala Leu Ile Gin Gln Phe Met Ile Leu Ser Phe Gly Ser Leu Ala Asn
182 530 535 540
184 Ser Thr Pro Tyr Leu Gly Met Ile Leu Leu Val Ile Val Thr Ala Trp
185 545 550 555 560
187 Leu Ala Ala Ala Lys Ser Leu Glu Gly Gln Phe Asn Ser Leu Arg Leu
188 565 570 575
190 Lys Lys Ser Leu Arg Arg Lys Trp Arg Glu Leu His Arg
191 580 585
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196 <211> LENGTH: 569
197 <212> TYPE: PRT
198 <213> ORGANISM: Arabidopsis thaliana
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204 His Arg Ser Glu Lys Val Leu Gln Pro Ser His Gly Leu Lys Gln Arg
205 20 25 30
207 Leu Phe Thr Thr Asn Leu Pro Ala Leu Ser Leu Ser Leu Met Val Thr
208 35 40 45
210 Arg Asn Phe Lys Pro Phe Ser Lys Ser His Leu Gly Phe Arg Phe Pro
211 50 55 60
213 Thr Arg Arg Glu Ala Glu Asp Ser Leu Ala Arg Arg Lys Leu Arg Arg
214 65 70 75 80
216 Pro Arg Arg Lys Cys Val Asp Glu Gly Asp Thr Ala Ala Met Ala Val
217 85 90 95

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219 Ser Pro Lys Ile Phe Gly Val Glu Val Thr Thr Leu Lys Lys Ile Val
 220 100 105 110
 222 Pro Leu Gly Leu Met Phe Phe Cys Ile Leu Phe Asn Tyr Thr Ile Leu
 223 115 120 125
 225 Arg Asp Thr Lys Asp Val Val Leu Val Val Thr Ala Lys Gly Ser Ser Ala
 226 130 135 140
 228 Glu Ile Ile Pro Phe Leu Lys Thr Trp Val Asn Val Pro Met Ala Ile
 229 145 150 155 160
 231 Gly Phe Met Leu Leu Tyr Thr Lys Leu Ser Asn Val Leu Ser Lys Lys
 232 165 170 175
 234 Ala Leu Phe Tyr Thr Val Ile Val Pro Phe Ile Val Tyr Phe Gly Ala
 235 180 185 190
 237 Phe Gly Phe Val Met Tyr Pro Arg Ser Asn Leu Ile Gln Pro Glu Ala
 238 195 200 205
 240 Leu Ala Asp Lys Leu Leu Ala Thr Leu Gly Pro Arg Phe Met Gly Pro
 241 210 215 220
 243 Leu Ala Ile Met Arg Ile Trp Ser Phe Cys Leu Phe Tyr Val Met Ala
 244 225 230 235 240
 246 Glu Leu Trp Gly Ser Val Val Val Ser Val Leu Phe Trp Gly Phe Ala
 247 245 250 255
 249 Asn Gln Ile Thr Thr Val Asp Glu Ala Lys Lys Phe Tyr Pro Leu Phe
 250 260 265 270
 252 Gly Leu Gly Ala Asn Val Ala Leu Ile Phe Ser Gly Arg Thr Val Lys
 253 275 280 285
 255 Tyr Phe Ser Asn Met Arg Lys Asn Leu Gly Pro Gly Val Asp Gly Trp
 256 290 295 300
 258 Ala Val Ser Leu Lys Ala Met Met Ser Ile Val Val Gly Met Gly Leu
 259 305 310 315 320
 261 Ala Ile Cys Phe Leu Tyr Trp Trp Val Asn Arg Tyr Val Pro Leu Pro
 262 325 330 335
 264 Thr Arg Ser Lys Lys Lys Val Lys Pro Gln Met Gly Thr Met Glu
 265 340 345 350
 267 Ser Leu Lys Phe Leu Val Ser Ser Pro Tyr Ile Arg Asp Leu Ala Thr
 268 355 360 365
 270 Leu Val Val Ala Tyr Gly Ile Ser Ile Asn Leu Val Glu Val Thr Trp
 271 370 375 380
 273 Lys Ser Lys Leu Lys Ser Gln Phe Pro Ser Pro Asn Glu Tyr Ser Ala
 274 385 390 395 400
 276 Phe Met Gly Asp Phe Ser Thr Cys Thr Gly Ile Ala Thr Phe Thr Met
 277 405 410 415
 279 Met Leu Leu Ser Gln Tyr Val Phe Lys Lys Tyr Gly Trp Gly Val Ala
 280 420 425 430
 282 Ala Lys Ile Thr Pro Thr Val Leu Leu Leu Thr Gly Val Ala Phe Phe
 283 435 440 445
 285 Ser Leu Ile Leu Phe Gly Gly Pro Phe Ala Pro Leu Val Ala Lys Leu
 286 450 455 460
 288 Gly Met Thr Pro Leu Leu Ala Ala Val Tyr Val Val Pro Pro Glu Val
 289 465 470 475 480
 291 Ser Ser Ala Arg Val Gln Val Gln His Ser Ser Thr Pro Ser Ala Met

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292 485 490 495
 294 Gln Gln Cys Leu Tyr Pro Leu Asp Glu Val Ser Lys Val Lys Ala Lys
 295 500 505 510
 297 Leu Gln Leu Met Trp Ser Ala Thr Ile Gly Lys Ser Gly Gly Ala Leu
 298 515 520 525
 300 Ile Gln Gln Phe Met Ile Leu Thr Phe Gly Ser Leu Ala Asn Ser Thr
 301 530 535 540
 303 Pro Tyr Leu Gly Val Ile Leu Leu Gly Ile Val Thr Ala Trp Leu Ala
 304 545 550 555 560
 306 Ala Ala Lys Ser Leu Glu Gly Pro Val
 307 565
 311 <210> SEQ ID NO: 7
 312 <211> LENGTH: 498
 313 <212> TYPE: PRT
 314 <213> ORGANISM: Rickettsia prowazekii
 316 <400> SEQUENCE: 7
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 320 Ile Trp Pro Ile Glu Gln Tyr Glu Asn Lys Lys Phe Leu Pro Leu Ala
 321 20 25 30
 323 Phe Met Met Phe Cys Ile Leu Leu Asn Tyr Ser Thr Leu Arg Ser Ile
 324 35 40 45
 326 Lys Asp Gly Phe Val Val Thr Asp Ile Gly Thr Glu Ser Ile Ser Phe
 327 50 55 60
 329 Leu Lys Thr Tyr Ile Val Leu Pro Ser Ala Val Ile Ala Met Ile Ile
 330 65 70 75 80
 332 Tyr Val Lys Leu Cys Asp Ile Leu Lys Gln Glu Asn Val Phe Tyr Val
 333 85 90 95
 335 Ile Thr Ser Phe Phe Leu Gly Tyr Phe Ala Leu Phe Ala Phe Val Leu
 336 100 105 110
 338 Tyr Pro Tyr Pro Asp Leu Val His Pro Asp His Lys Thr Ile Glu Ser
 339 115 120 125
 341 Leu Ser Leu Ala Tyr Pro Asn Phe Lys Trp Phe Ile Lys Ile Val Gly
 342 130 135 140
 344 Lys Trp Ser Phe Ala Ser Phe Tyr Thr Ile Ala Glu Leu Trp Gly Thr
 345 145 150 155 160
 347 Met Met Leu Ser Leu Leu Phe Trp Gln Phe Ala Asn Gln Ile Thr Lys
 348 165 170 175
 350 Ile Ala Glu Ala Lys Arg Phe Tyr Ser Met Phe Gly Leu Leu Ala Asn
 351 180 185 190
 353 Leu Ala Leu Pro Val Thr Ser Val Val Ile Gly Tyr Phe Leu His Glu
 354 195 200 205
 356 Lys Thr Gln Ile Val Ala Glu His Leu Lys Phe Val Pro Leu Phe Val
 357 210 215 220
 359 Ile Met Ile Thr Ser Ser Phe Leu Ile Ile Leu Thr Tyr Arg Trp Met
 360 225 230 235 240
 362 Asn Lys Asn Val Leu Thr Asp Pro Arg Leu Tyr Asp Pro Ala Leu Val
 363 245 250 255
 365 Lys Glu Lys Lys Thr Lys Ala Lys Leu Ser Phe Ile Glu Ser Leu Lys

VERIFICATION SUMMARY
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Input Set : A:\PTO.txt
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L:15 N:270 C: Current Application Number differs, Replaced Application Number
L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date